

**Title: S p i n a l C o r d I n j u r y N e u r o p r o t e c t i o n w i t h G l y b u r i d e
(SCING)**

Pilot Study: An Open-Label Prospective Evaluation of the Feasibility, Safety, Pharmacokinetics, and Preliminary Efficacy of Oral Glyburide in Patients with Acute Traumatic Spinal Cord Injury

Document Date: 12/31/2019

NCT #: NCT02524379

Informed Consent Form

The Ohio State University Consent to Participate in Research

Study Title: *Spinal Cord Injury Neuroprotection with Glyburide: Pilot Study: An Open-Label Prospective Evaluation of the Feasibility, Safety, Pharmacokinetics, and Preliminary Efficacy of Oral Glyburide in Patients with Acute Traumatic Spinal Cord Injury*

Principal Investigator: H. Francis Farhadi, MD, PhD

Sponsor: OSU

- **This is a consent form for research participation.** It contains important information about this study and what to expect if you decide to participate. Please consider the information carefully. Feel free to discuss the study with your friends and family and to ask questions before making your decision whether or not to participate.
- **Your participation is voluntary.** You may refuse to participate in this study. If you decide to take part in the study, you may leave the study at any time. No matter what decision you make, there will be no penalty to you and you will not lose any of your usual benefits. Your decision will not affect your future relationship with The Ohio State University. If you are a student or employee at Ohio State, your decision will not affect your grades or employment status.
- **You may or may not benefit as a result of participating in this study.** Also, as explained below, your participation may result in unintended or harmful effects for you that may be minor or may be serious depending on the nature of the research.
- **You will be provided with any new information that develops during the study that may affect your decision whether or not to continue to participate.** If you decide to participate, you will be asked to sign this form and will receive a copy of the form. You are being asked to consider participating in this study for the reasons explained below.

1. Why is this study being done?

This is a pilot study (a small scale study used to decide how and whether to launch a larger scale project) being specifically done at ten Level I trauma centers. You are being asked to take part in this study because you are between 18 and 80 years old and have had a severe traumatic cervical spinal cord injury.

The purpose of this study is to assess the degree of ease of using an oral drug called Glyburide, which may act as a neuro-protective (slowing or preventing the loss of nerve cells) agent. In addition, the safety of using this drug will be evaluated. You will participate for approximately one year. Your doctor will follow you over the course of the year, including carefully monitoring you for side effects. Another goal of this study is to determine the potential effectiveness of oral Glyburide in improving outcomes for patients with spinal cord injuries.

2. How many people will take part in this study?

Up to ten (10) patients in total with a severe traumatic cervical cord spine injury will take part in this study at OSU and at other level 1 trauma centers in the US.

3. What will happen if I take part in this study?

If you decide to be a part of this study, you will undergo standard of care bloodwork, computerized tomography (CT) scan and Magnetic Resonance Imaging (MRI) of the spine. A CT scan uses an x-ray and a computer to take multiple pictures of your body. An MRI creates images of the body using a magnet and radio waves. You will also be given Glyburide within 8 hours of your injury and stopped after 72 hours of treatment. During this time (until discharge) your vital signs, labs, and blood glucose will be monitored. You will also undergo an MRI on day 2, as well as an electrocardiogram (ECG) daily through day 4. An ECG is a test that gives information about the heart’s electrical activity. The ECG’s on days 2 - 4 are considered research procedures specifically for the study and not part of your standard of care treatment. You will also have blood drawn to test the level of Glyburide as well as certain injury markers (called biomarkers) in your body. This blood will be drawn when you are first enrolled and once on days 1, 2, 3, and 7. The amount of blood drawn for these will equal about 3 US tablespoons for the whole study. Your glucose levels will be checked every hour on the first day of treatment, every two hours on the second day of treatment, and every four hours on the third day of treatment. These checks may increase if we find that your glucose levels are lower than normal. After the treatment, you will have follow-ups on Day 28, Day 42, Day 84, Day 182 and Day 365.

For detailed schedule, please see table below:

	Screening / Enrollment (up to 6 hours prior to treatment)	Day 1	Day 2	Day 3	Day 4	Day 7	Day 8 - 14 or Discharge	Day 28	Day 42	Day 84	Day 182	Day 365
Tests and/or Observations	X	X	X	X	X	X	X	X	X	X	X	X
MRI	X		X									
CT	X											
Labs	X	X	X	X			X					
ECG	X	X	X	X								

Drug	X	X	X	X								
Surveys	X	X	X	X	X	X	X	X	X	X	X	X

4. How long will I be in the study?

You will undergo careful monitoring with clinical evaluations, lab tests, etc. for the duration of your hospital stay. You will be asked to return for follow up visits on Days 28, 42, 84, 182, and 365. These visits will include a History and Physical and surveys. You will complete the study after the 365 day follow up visit.

5. Can I stop being in the study?

Taking part in this research study is voluntary. You may leave the study at any time. If you decide to stop participating in the study, there will be no penalty to you, and you will not lose any benefits to which you are otherwise entitled. Your decision will not affect your future relationship with The Ohio State University.

We may take you out of the study, even without your agreement, if:

- It is not in your best medical interests to continue.
- You do not follow instructions.
- The study is terminated.
- You elect to participate in another study with an experimental drug.

However, for your safety, if you leave the study early, your study doctor or his staff may or may not ask you to finish the study termination procedures.

6. What risks, side effects or discomforts can I expect from being in the study?

Standard of Care Related:

If you have surgery for your spinal cord injury, it is considered standard of care meaning that it is how most people with your disease or condition are surgically treated. You may have risks of surgery whether you take part in this study or not. The risks associated with the surgery will be described to you separately as this consent form pertains only to this research study.

Risks related to the use of Glyburide:

During the study, you will be monitored for evidence of any side effects. If you develop side effects, your study doctor will give you the care that you need.

- 1) Significantly decreased blood sugar: In earlier studies of healthy volunteers and acute stroke subjects, a 3mg intravenous daily drug dose (as used in this study but in oral form) was found to be safe and well tolerated. The study drug did not cause a significant or persistent drop in blood sugar in patients at the 3 mg/day dose. Your blood sugar levels will be checked several times, as part of your standard care. As part of the study, we will check your blood sugar levels more often and provide treatment for low blood sugar, if needed.
- 2) Nasogastric tube placement risks: A nasogastric tube may need to be placed to administer the glyburide tablets. This is a tube that may have been placed due to your injuries and helps your doctor provide you with nutritional support. Uncommon risks associated with nasogastric tubes include sinusitis (an infection within your sinus cavities), aspiration (breathing food, liquid, or vomit into your lungs), and misplacement (improper insertion of the tube).
- 3) Abnormal changes in liver function: At the doses used in this study, there have been no significant changes in liver function to date.
- 4) Low blood count, liver failure, or skin reactions: Low blood count, liver failure, and skin reactions have been reported in diabetic subjects who were taking oral glyburide. These side effects are very rare, and occur in less than 2 in 100 diabetic subjects. The significance of these earlier reports is not known in relation to this study. It is important to know that these earlier reports involved diabetic subjects, some of whom were taking glyburide at much higher doses and for longer periods of time than you will receive in this study. We will monitor you closely for all these side effects and if signs of any of these are present study drug will be discontinued and you will be treated as necessary.
- 5) Increased risk of cardiovascular death: All of the oral sulfonylurea drugs that are available in the United States have a special warning on their labels. Glyburide is a sulfonylurea drug. The warning states that there is an increased risk of cardiovascular (heart and blood vessel) death. We will monitor your heart closely and discontinue therapy if a life threatening cardiac event occurs.

- 6) Unsafe drug interactions: The study drug may interact with other drugs, especially those that affect your blood sugar. Your blood sugar levels could go down or up, even more than usual. If you need medications that are known to interact with Glyburide, we will monitor you very closely and treat you, if needed. We can also use other medications that have no known interaction with Glyburide.
- 7) Allergic reactions: As with any drug, an allergic reaction can occur. Allergic reactions can be mild or more serious, and can even result in death. Common symptoms of an allergic reaction are rash, itching, skin problems, swelling of the face and throat, or trouble breathing. If you think you are having an allergic reaction, let the study doctor know right away. Unknown risks: There may be other risks or side effects that are unknown at this time.
- 8) Unknown risks: There may be other risks or side effects that are unknown at this time.

Other Research Related Risks:

There may be a small risk in the process of drawing blood. The side effects you may experience from the blood draws are the following:

- Feeling faint
- Dizziness
- Pain or discomfort as the needle goes through your skin
- Bleeding or bruising at the site where the blood is drawn
- Swelling or infection of your arm

Participation in research rarely involves loss of privacy. Your research records will be handled as confidentially as is possible within the law. No individual identification (such as names, initials, dates of birth or social security numbers) will be used in any reports or publications resulting from this study.

Other points to consider:

You may refuse to do any of the study tasks that you do not wish to.

You have the right to refuse to answer any question for any reason.

Significant new findings developed during the course of the study, which may relate to your willingness to continue participation, will be provided by the doctor listed on the first page of this document.

Pregnancy/Childbearing Potential

If you are a female and plan to become pregnant during the first 3 months of study participation, are currently pregnant, or are breast-feeding, you must not take part in this study. A pregnancy test will be done if you are a female and able to bear children. This is the standard of care, as all women of childbearing age are tested for pregnancy following a trauma admission. You must agree to use an acceptable method of birth control. If you decide to take part in the study and think you have become pregnant within 3 months after enrollment, tell the study doctor; your pregnancy and the birth of your child may be monitored for safety.

7. What benefits can I expect from being in the study?

You may or may not personally benefit from being in this study. However, the results from this study may help us learn more about treating patients with spinal cord injuries in the future.

8. What other choices do I have if I do not take part in the study?

You may still be able to undergo surgery because this treatment is considered standard of care. You may choose not to participate without penalty or loss of benefits to which you are otherwise entitled.

9. Will my study-related information be kept confidential?

Efforts will be made to keep your study-related information confidential. However, there may be circumstances in which this information must be released. For example, personal information regarding your participation in this study may be disclosed if required by state or Federal law.

Also, your records may be reviewed by the following groups (as applicable to the research):

- Office for Human Research Protections or other federal, state, or international regulatory agencies;
- U.S. Food and Drug Administration, or representatives of other healthcare agencies;
- The Ohio State University Institutional Review Board or Office of Responsible Research Practices;
- Your insurance company (if charges are billed to insurance)

If this study is related to your medical care, your study-related information may be placed in your permanent hospital, clinic, or physician's office records. Authorized Ohio State University staff not involved in the study may be aware that you are participating in a research study and have access to your information.

A description of this clinical trial will be available on <http://www.ClinicalTrials.gov>, as required by U.S. law. This website will not include information that can identify you. At

most, the website will include a summary of the results. You can search the website at any time.

You may also be asked to sign a separate Health Insurance Portability and Accountability Act (HIPAA) research authorization form if the study involves the use of your protected health information.

10. What are the costs of taking part in this study?

The procedures in this study associated with your clinical care and surgery are a part of the standard of care. These would be performed even if you were not in this study. The costs associated with your clinical care and surgery will be billed to your insurance. You will be responsible for meeting any co-pay and deductible requirements by your insurance plan as well as any costs your insurance does not cover. If you are uninsured, you will be billed for the costs associated with your clinical care and surgery.

The Glyburide that is used as part of this study will be free of charge. Neither you nor your insurance company will be charged for it.

The blood work done to look at the levels of Glyburide and injury markers (biomarkers) in your blood are considered research and will not be charged to you or your insurance company. As noted above, the Days 2 – 4 ECG's are considered research procedures and will not be charged to you or your insurance company.

Participating in this research study may lead to additional costs to you. In some cases, it is possible that your insurance company will not pay for the standard of care procedures including the surgery as a result of your participation in the study.

11. Will I be paid for taking part in this study?

You will not be paid for participating in this study.

12. What happens if I am injured because I took part in this study?

If you suffer an injury from participating in this study, you should notify the researcher or study doctor immediately, who will determine if you should obtain medical treatment at The Ohio State University Medical Center.

The cost for this treatment will be billed to you or your medical or hospital insurance. The Ohio State University has no funds set aside for the payment of health care expenses for this study.

13. What are my rights if I take part in this study?

If you choose to participate in the study, you may discontinue participation at any time without penalty or loss of benefits. By signing this form, you do not give up any personal legal rights you may have as a participant in this study.

You will be provided with any new information that develops during the course of the research that may affect your decision whether or not to continue participation in the study.

You may refuse to participate in this study without penalty or loss of benefits to which you are otherwise entitled.

An Institutional Review Board responsible for human subjects research at The Ohio State University reviewed this research project and found it to be acceptable, according to applicable state and federal regulations and University policies designed to protect the rights and welfare of participants in research.

14. Who can answer my questions about the study?

For questions, concerns, or complaints about the study you may contact **Dr. H. Francis Farhadi at 614-366-4961.**

For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact Ms. Sandra Meadows in the Office of Responsible Research Practices at 1-800-678-6251.

If you are injured as a result of participating in this study or for questions about a study-related injury, you may contact **Dr. H. Francis Farhadi at 614-366-4961.**

Signing the consent form

I have read (or someone has read to me) this form and I am aware that I am being asked to participate in a research study. I have had the opportunity to ask questions and have had them answered to my satisfaction. I voluntarily agree to participate in this study.

I am not giving up any legal rights by signing this form. I will be given a copy of this signed form.

_____	_____
Printed name of subject	Signature of subject
	_____ AM/PM
	Date and time
_____	_____
Printed name of person authorized to consent for subject (when applicable)	Signature of person authorized to consent for subject (when applicable)
	_____ AM/PM
_____	_____
Relationship to the subject	Date and time

Investigator/Research Staff

I have explained the research to the participant or his/her representative before requesting the signature(s) above. There are no blanks in this document. A copy of this signed form will be given to the participant or his/her representative.

_____	_____
Printed name of person obtaining consent	Signature of person obtaining consent
	_____ AM/PM
	Date and time

Witness(es) - *May be left blank if not required by the IRB*

_____	_____
Printed name of witness	Signature of witness
	_____ AM/PM
	Date and time

_____	_____
Printed name of witness	Signature of witness
	_____ AM/PM
	Date and time